

building, and downgradient from the “A” Yard kitchen. Observed practices of equipment washdown, leaking waste dumpsters (including discarded coffee grounds), or particulate from coffee roasting could be sources of caffeine. While caffeine was detected downstream, it was also detected upstream and both results were less than 1 microgram per liter. The CCTV results and these analytical results indicate that the coffee roaster facility is not a source of illicit discharges into the storm water collection system.

Irrigation runoff sample results detected the herbicides glyphosate (Roundup®) and fertilizer chemical components (nitrogen, phosphorous, and potassium) at each discharge location sampled. The herbicide triclopyr was detected in sample DI-P166. These herbicides are applied by MCSP staff in accordance with manufacturer recommendations and, therefore, do not represent an illicit discharge.

4.3.2 Mule Creek Water Sampling

Samples from Mule Creek resulted in 37 detections of oil and grease from 53 samples at all three locations sampled (oil and grease detection percentage was 52% upstream, 43% midstream, and 53% downstream). These detections are likely attributable to non-point sources such as runoff from roadways or the geology of the area (see Section 1.2.1).

All three locations along Mule Creek also had detections of coliforms; however, the fecal coliform is believed to be from an avian source based on previous qualitative analysis and is being further investigated in the SCCWRP study.

General chemistry results were nominal and showed no exceedances in IGP annual or instantaneous maximum concentrations of the constituents listed in Table 2 of the IGP.

Metals results show a slight increase at the downstream location of aluminum, iron, nickel, sodium, and zinc and a decrease in arsenic and magnesium relative to the upstream location.

Table 4.3-7 presents the number of samples collected, the number of detections, the water quality objectives, and the number of detections that are above water quality objectives for the upstream location on Mule Creek.

Table 4.3-7 Mule Creek Upstream Totals Select Results
Mule Creek State Prison, Lone, California

Constituent	# Samples	# Detections	WQO ¹	# Detections > ² WQO
Petroleum (ug/L³ unless noted)				
Oil & Grease (mg/L) ⁴	19	10	15 / 25 ⁵	0 / 0
VOCs⁶ (ug/L)				
Acetone	19	1	6,300	0
SVOCs⁷ (ug/L)				
Di-n-butyl phthalate	18	2	3	1
Microbial (MPN/100ml)⁸				
Fecal Coliform	23	23	>2.2	23
Total Coliform	23	23	>2.2	23
E. Coli	34	34	>2.2	34
General Chemistry (mg/L)				
Ammonia	19	0	1.5	-- ⁹
Total Alkalinity	19	19	20	19
BOD ¹⁰	19	2	30	0
Chloride	19	19	106	0
COD ¹¹	1	0	120	--
Specific Conductance	1	1	700	0
MBAS ¹²	1	0	0.5	--
Nitrate as N	18	12	10	0
Nitrite as N	19	11	1	0
pH ¹³	1	1	6.5 - 8.5	0
Settleable Solids	1	0	1	--
Sulfate as SO ₄	19	19	250	0
TDS ¹⁴	19	19	500	0
TSS ¹⁵	19	17	100 / 400	0 / 0
Phosphorus	1	0	0.0001	--

Table 4.3-7 Mule Creek Upstream Totals Select Results
Continued Mule Creek State Prison, Ione, California

Constituent	# Samples	# Detections	WQO	# Detections > WQO
Metals (ug/L)				
Aluminum	19	17	50	11
Antimony	1	0	6	--
Arsenic	19	18	10	0
Barium	19	19	1,000	0
Beryllium	1	0	4	--
Cadmium	19	0	5	--
Calcium	19	19	--	--
Chromium	19	2	50	0
Cobalt	1	0	50	--
Copper	1	0	33.2	--
Iron	19	16	300	9
Lead	19	7	15	0
Magnesium	19	19	64	19
Manganese	1	0	50	--
Mercury	19	0	2	--
Molybdenum	1	0	10	--
Nickel	1	0	100	--
Potassium	18	18	--	--
Selenium	19	0	5	--
Silver	19	1	18.3	0
Sodium	19	19	20,000	5
Thallium	1	0	2	--
Vanadium	19	6	50	0
Zinc	19	1	260	0
1. WQO: water quality objective 2. >: greater than 3. ug/L: micrograms per liter 4. mg/L: milligrams per liter 5. annual numeric action limit / instantaneous maximum numeric action limit 6. VOC: volatile organic compounds 7. SVOC: semi-volatile organic compounds 8. MPN/100ml: most probable number per 100 milliliters 9. --: not applicable 10. BOD: biological oxygen demand 11. COD: chemical oxygen demand 12. MBAS: methylene blue active substances 13. pH: potential of hydrogen 14. TDS: total dissolved solids 15. TSS: total suspended solids				

Table 4.3-8 presents the number of samples collected, the number of detections, the water quality objectives, and the number of detections that are above water quality objectives for the midstream location on Mule Creek.

Table 4.3-8 Mule Creek Midstream Totals Select Results
Mule Creek State Prison, Ione, California

Constituent	# Samples	# Detections	WQO ¹	# Detections > ² WQO
Petroleum (ug/L³ unless noted)				
Oil & Grease (mg/L) ⁴	7	3	15 / 25 ⁵	0 / 0
VOCs⁶ (ug/L)				
VOCs	7	0	-- ⁷	--
SVOCs⁸ (ug/L)				
SVOCs	2	0	--	--
Microbial (MPN/100ml)⁹				
Fecal Coliform	7	7	>2.2	7
Total Coliform	7	7	>2.2	7
E. Coli	7	7	>2.2	7
General Chemistry (mg/L)				
Ammonia	7	0	1.5	--
Total Alkalinity	7	7	20	7
BOD ¹⁰	7	2	30	0
Chloride	7	7	106	0
COD ¹¹	7	4	120	0
Specific Conductance	7	7	700	0
MBAS ¹²	7	0	0.5	--
Nitrate as N	7	2	10	0
Nitrite as N	7	1	1	0
pH ¹³	7	7	6.5 - 8.5	0
Settleable Solids	7	1	1	0
Sulfate as SO ₄	7	7	250	0
TDS ¹⁴	7	7	500	0
TSS ¹⁵	7	5	100 / 400	0 / 0
Phosphorus	7	5	0.0001	5

Table 4.3-8 Mule Creek Midstream Totals Select Results
Continued Mule Creek State Prison, Ione, California

Constituent	# Samples	# Detections	WQO	# Detections > WQO
Metals (ug/L)				
Aluminum	7	4	50	3
Antimony	7	7	6	0
Arsenic	7	7	10	0
Barium	6	6	1,000	0
Beryllium	6	0	4	--
Cadmium	7	0	5	--
Calcium	7	7	--	--
Chromium	7	2	50	0
Cobalt	6	3	50	0
Copper	6	3	33.2	0
Iron	7	4	300	3
Lead	7	1	15	0
Magnesium	7	7	64	7
Manganese	7	6	50	1
Mercury	3	0	2	--
Molybdenum	6	3	10	0
Nickel	7	7	100	0
Potassium	0	--	--	--
Selenium	7	0	5	--
Silver	6	0	18.3	--
Sodium	7	7	20,000	0
Thallium	6	0	2	--
Vanadium	7	2	50	0
Zinc	7	1	260	0
1. WQO: water quality objective 2. >: greater than 3. ug/L: micrograms per liter 4. mg/L: milligrams per liter 5. annual numeric action limit / instantaneous maximum numeric action limit 6. VOC: volatile organic compounds 7. --: not applicable 8. SVOC: semi-volatile organic compounds 9. MPN/100ml: most probable number per 100 milliliters 10. BOD: biological oxygen demand 11. COD: chemical oxygen demand 12. MBAS: methylene blue active substances 13. pH: potential of hydrogen 14. TDS: total dissolved solids 15. TSS: total suspended solids				

Table 4.3-9 presents the number of samples collected, the number of detections, the water quality objectives, and the number of detections that are above water quality objectives for the downstream location on Mule Creek.

Table 4.3-9 Mule Creek Downstream Totals Select Results
Mule Creek State Prison, Lone, California

Constituent	# Samples	# Detections	WQO ¹	# Detections > ² WQO
Petroleum (ug/L³ unless noted)				
Oil & Grease (mg/L) ⁴	27	14	15 / 25 ⁵	0 / 0
TPH-D	26	1	56	1
Motor Oil	18	1	15	1
VOCs⁶ (ug/L)				
Acetone	26	4	6,300	0
Chloroform	26	1	80	0
SVOCs⁷ (ug/L)				
Di-n-butyl phthalate	22	3	3	1
Di-n-octyl phthalate	22	2	3	0
Microbial (MPN/100ml)⁸				
Fecal Coliform	31	31	>2.2	31
Total Coliform	31	31	>2.2	31
E. Coli	42	41	>2.2	41
General Chemistry (mg/L)				
Ammonia	27	4	1.5	0
Total Alkalinity	27	27	20	25
BOD ⁹	27	13	30	0
Chloride	27	27	106	0
COD ¹⁰	8	6	120	0
Specific Conductance	8	8	700	0
MBAS ¹¹	8	4	0.5	0
Nitrate as N	26	19	10	0
Nitrite as N	27	18	1	0
pH ¹²	9	9	6.5 - 8.5	1
Settleable Solids	8	2	1	0
Sulfate as SO4	27	27	250	0
TDS ¹³	27	27	500	0
TSS ¹⁴	27	26	100 / 400	2 / 0
Phosphorus	8	6	0.0001	6

Table 4.3-9 Mule Creek Downstream Totals Select Results
Continued Mule Creek State Prison, Ione, California

Constituent	# Samples	# Detections	WQO	# Detections > WQO
Metals (ug/L)				
Aluminum	27	27	50	22
Antimony	8	2	6	0
Arsenic	27	26	10	0
Barium	26	26	1,000	0
Beryllium	7	0	4	-- ¹⁵
Cadmium	27	2	5	0
Calcium	27	27	--	--
Chromium	27	13	50	0
Cobalt	7	6	50	0
Copper	6	6	33.2	1
Iron	27	27	300	21
Lead	27	23	15	3
Magnesium	27	27	64	27
Manganese	8	7	50	3
Mercury	23	0	2	--
Molybdenum	7	6	10	0
Nickel	8	8	100	0
Potassium	18	18	--	--
Selenium	27	3	5	0
Silver	26	2	18.3	0
Sodium	27	27	20,000	1
Thallium	7	0	2	--
Vanadium	25	20	50	0
Zinc	27	14	260	1
1. WQO: water quality objective 2. >: greater than 3. ug/L: micrograms per liter 4. mg/L: milligrams per liter 5. annual numeric action limit / instantaneous maximum numeric action limit 6. VOC: volatile organic compounds 7. SVOC: semi-volatile organic compounds 8. MPN/100ml: most probably number per 100 milliliters 9. BOD: biological oxygen demand 10. COD: chemical oxygen demand 11. MBAS: methylene blue active substances 12. pH: potential of hydrogen 13. TDS: total dissolved solids 14. TSS: total suspended solids 15. --: not applicable				

4.3.3 Molecular Source Tracking Water Sampling

Water sampling detected microorganisms (total coliform bacteria, fecal coliform bacteria, and *E. coli*) that are used as initial indicator organisms for the presence of wastewater. Additional analyses were necessary to confirm whether sewage or wastewater were present. Qualitative DNA biomarker analysis on surface water and stormwater samples from the stormwater collection system indicate the detections of indicator microorganisms are not from a human source. Bird biomarkers, however, have been detected in the qualitative analysis. The SCCWRP Study Plan is investigating sources of the microorganisms detected in surface waters, and the results will be provided in the fall of 2020.

Appendix 2 Tables 2-14 and 2-20 present the laboratory results of qualitative MST analysis performed by Source Molecular Corporation.

SHN collected a sample from the WWTP headworks for a positive control sample to aid in human biomarker identification and comparison to all other samples collected. Additionally, seven (7) bird scat samples were collected from the Central Corridor to aid in bird biomarker identification and comparison to all other samples collected. Location of the baseline MST samples and bird scat samples are shown in Figure 1-8.

Due to the nature of the facility, the sewage source coming into the WWTP is from a small limited human population on a similar diet (prison) and diet affects gut bacteria. The headworks raw sewage control qualitative sample results showed high concentrations of the marker species HF183. The headworks control results were used to validate the use of HF183 as the indicator marker to compare to samples collected during this investigation for human fecal contamination.

Additional samples were collected twice a week for 4 weeks at GT-3 to provide additional data to support the results that fecal indicator bacteria (FIB) detected in water discharging from GT-3 outfall is not from a human source. Qualitative analytical data from repeated sampling events show that the fecal coliforms detected in water samples collected from GT-3 are from an avian source and not from a human source.

4.3.4 Baseline Sampling

Water samples were collected to establish baseline conditions in the domestic water supply and wastewater for MCSP. A discussion of the results is presented below.

4.3.4.1 Domestic Water

The baseline sample collected on March 28, 2018, contained the trihalomethanes chloroform, bromoform, bromodichloromethane, and dibromochloromethane. The baseline sample collected on June 12, 2018, contained bromodichloromethane and chloroform. None of the detections for these trihalomethanes were above the California primary maximum contaminant level (MCL) of 80 ug/L. The water supply for the prison, provided by the AWA lone service area, was below the standards for trihalomethanes in 2018 (the latest data available; Appendix 21) with a running average of 42.40 ug/L and a range of 36 ug/L to 53 ug/L. Water samples collected from the Main Drainage Basin showed average chloroform concentrations are approximately an order of magnitude less than the domestic water supply.

The baseline water sample collected on June 12, 2018, also had a detection of oil and grease at 7.0 milligrams per liter (mg/L). It is not known if this is common occurrence in AWA water since it is not tested; however, if it is a common occurrence, it is likely due to the geology of the area, which is documented to contain lignite (a low-grade coal).

All other domestic water parameters tested were nominal.

4.3.4.2 Wastewater Treatment Plant

The majority of the wastewater treatment plant sample parameters show nominal results. No petroleum hydrocarbons were detected. VOCs detected were trihalomethanes and acetone. No coliforms were detected in the chlorine contact chamber samples while coliforms were detected in the secondary effluent sample as expected.

4.3.4.3 Former Sewer Lift Station (Vault 4)

The highest concentration of acetone was detected in Vault 4 at a concentration of 12,000 ug/L. Vault 4 was initially thought to be a communication vault at the time of sampling, but further investigation discovered that it is was sewer lift station. Vault 4 is plumbed to two sinks in the Medical Distribution Building attached to Housing Unit Y-7, and CCTV confirmed it is connected to sanitary sewer segment 7B7. This detection does not impact stormwater.

4.3.5 Stormwater Event Sampling

Results from samples collected from Mule Creek during storm events show multiple detections of oil and grease. Additionally, the only parameters exceeding the IGP Table 2 annual NALs are aluminum, iron, and zinc. These detections of oil and grease as well as aluminum and iron are believed to be associated with the natural soils in the vicinity of lone and MCSP and, therefore, these results are not unexpected. Zinc was observed one time in excess of the water quality objective at the downstream sampling location. Galvanized metal at the facility is the likely source of zinc.

4.3.6 Water Quality Objectives

Water quality objectives selected for comparison to MCSP sample results were the lowest of the drinking water standards from the SWRCB Water Quality Goals Database consistent with the CVRWQCB 14 February 2018 13267 Order. If the Annual Numerical Action Limit values, as listed in Order 2014-0057-DWQ IGP Table 2 (IGP Table 2 Annual NAL), were lower than the drinking water standards, the IGP Table 2 Annual NAL values were used. If no drinking water standards and no IGP Table 2 Annual NAL values were listed, the lowest value was selected from the SWRCB Water Quality Goals Database. Ocean Plan or Enclosed Bays & Estuary were only used if no other water quality objective values were listed.

Table 4.3-10 summarizes the water quality objectives selected for comparison to the MCSP sample results.

Table 4.3-10 Water Quality Objectives
Mule Creek State Prison, Lone, California

Constituent	WQOs ¹	Source	Reference
Petroleum (ug/L² unless noted)			
Oil & Grease (mg/L) ³	15 / 25	IGP ⁴ Table 2 NAL ⁵ Annual / Instantaneous Maximum	2014-0057-DWQ ⁶
TPHD ⁷	56	EPA ⁸ IRIS ⁹ Reference Dose	SWRCB ¹⁰ Database
TPHG ¹¹	5	EPA Health Advisory	SWRCB Database
VOCs¹² (ug/L)			
Benzene	1	pMCL ¹³	SWRCB Database
Toluene	40	EPA sMCL ¹⁴	SWRCB Database
Ethylbenzene	30	EPA sMCL	SWRCB Database
Total xylenes	20	EPA sMCL	SWRCB Database
Chloroform	80	pMCL	SWRCB Database
Bromoform	80	pMCL	SWRCB Database
DBCM ¹⁵	80	pMCL	SWRCB Database
BDCM ¹⁶	80	pMCL	SWRCB Database
Dichloro-difluoromethane	0.19	Human Health & Welfare Protection	SWRCB Database
Trichloro-fluoromethane	150	pMCL	SWRCB Database
Acetone	6,300	EPA IRIS Reference Dose	SWRCB Database
Methyl Ethyl Ketone	4,000	EPA Health Advisory	SWRCB Database
Napthalene	0.29	Cal-EPA ¹⁷ Cancer Potency Factor	SWRCB Database

Table 4.3-10 Water Quality Objectives
Continued Mule Creek State Prison, Lone, California

Constituent	WQOs	Source	Reference
SVOCs¹⁸ (ug/L)			
Benzoic Acid	28,000	EPA Reference Dose	SWRCB Database
Bis (2-chloroethyl) ether	0.014	Cal-EPA Cancer Potency Factor	SWRCB Database
Bis (2-ethylhexyl) phthalate	4	pMCL	SWRCB Database
Butyl benzyl phthalate	0.10	Human Health & Welfare Protection	SWRCB Database
Di-n-butyl phthalate	3	Freshwater Aquatic Life Protection	SWRCB Database
Di-n-octyl phthalate	3	Freshwater Aquatic Life Protection	SWRCB Database
Diethyl phthalate	3	Freshwater Aquatic Life Protection	SWRCB Database
Pentachlorophenol	1	pMCL	SWRCB Database
Phenol	1	Taste & Odor Threshold	SWRCB Database
Microbial (MPN/100ml)¹⁹			
Fecal Coliform	>2.2 ²⁰	Section 64426.1	Title 22, CCR ²¹
Total Coliform	>2.2	Section 64426.1	Title 22, CCR
E. Coli	>2.2	Section 64426.1	Title 22, CCR
General Chemistry (mg/L)			
Ammonia	1.5	Taste & Odor Threshold 2	SWRCB Database
Total Alkalinity	20	Freshwater Aquatic Life Protection	SWRCB Database
BOD ²²	30	IGP Table 2 NAL	2014-0057-DWQ
Chloride	106	Agricultural Water Quality Objectives	SWRCB Database
COD ²³	120	IGP Table 2 NAL	2014-0057-DWQ
Specific Conductance	700	Agricultural Water Quality Objectives	SWRCB Database
MBAS ²⁴	0.5	sMCL	SWRCB Database
Nitrate as N	10	pMCL	SWRCB Database
Nitrite as N	1	pMCL	SWRCB Database
pH ²⁵	6.5 – 8.5	EPA sMCL	SWRCB Database
Settleable Solids	1	Marine Aquatic Life Protection	SWRCB Database
Sulfate as SO4	250	sMCL	SWRCB Database
TDS ²⁶	500	sMCL	SWRCB Database
TSS ²⁷	100 / 400	IGP Table 2 NAL Annual / Instantaneous Maximum	2014-0057-DWQ
Phosphorus	0.0001	EPA Health Advisory	SWRCB Database

Table 4.3-10 Water Quality Objectives
Continued Mule Creek State Prison, Ione, California

Constituent	WQO	Source	Reference
Metals (ug/L)			
Aluminum	50	EPA sMCL	SWRCB Database
Antimony	6	pMCL	SWRCB Database
Arsenic	10	pMCL	SWRCB Database
Barium	1,000	pMCL	SWRCB Database
Beryllium	4	pMCL	SWRCB Database
Cadmium	5	pMCL	SWRCB Database
Chromium	50	pMCL	SWRCB Database
Cobalt	50	Agricultural Water Quality Objectives	SWRCB Database
Copper	33.2	IGP Table 2 Annual NAL	2014-0057-DWQ
Iron	300	sMCL	SWRCB Database
Lead	15	pMCL	SWRCB Database
Magnesium	64	IGP Table 2 Annual NAL	2014-0057-DWQ
Manganese	50	sMCL	SWRCB Database
Mercury	2	pMCL	SWRCB Database
Molybdenum	10	Agricultural Water Quality Objectives	SWRCB Database
Nickel	100	pMCL	SWRCB Database
Selenium	5	IGP Table 2 Annual NAL	2014-0057-DWQ
Silver	18.3	IGP Table 2 Annual NAL	2014-0057-DWQ
Sodium	20,000	EPA Health Advisory	SWRCB Database
Thallium	2	pMCL	SWRCB Database
Vanadium	50	California Notification Levels	SWRCB Database
Zinc	260	IGP Table 2 Annual NAL	2014-0057-DWQ
1. WQO: water quality objective 2. ug/L: micrograms per liter 3. mg/L: milligrams per liter 4. IGP: industrial general permit 5. NAL: numeric action limit 6. DWQ: Department of Water Quality 7. TPHD: total petroleum hydrocarbons as diesel 8. EPA: U.S. Environmental Protection Agency 9. IRIS: Integrated Risk Information System 10. SWRCB: State Water Resource Control Board 11. TPHG: total petroleum hydrocarbons as gasoline 12. VOC: volatile organic compound 13. pMCL: primary maximum contaminant level 14. sMCL: secondary maximum contaminant level 15. DBCM: dibromochloromethane 16. BDCM: bromodochloromethane 17. Cal-EPA: California Environmental Protection Agency 18. SVOC: semi-volatile organic compound 19. MPN/100ml: most probably number per 100 milliliters 20. >: greater than 21. CCR: California Code of Regulations 22. BOD: biological oxygen demand 23. COD: chemical oxygen demand 24. MBAS: methylene blue active substances 25. pH: potential of hydrogen 26. TDS: total dissolved solids 27. TSS: total suspended solids			

4.4 Soil Sampling

Results of soil samples collected during this investigation were used to assess the stockpiled soil and Perimeter Ditch soils for constituents associated with sanitary sewer effluent. Additionally, baseline soil samples were collected to compare to the soils from the stockpiles and the Perimeter Ditch.

4.4.1 Stockpiled Soil

Composite soil samples collected from soil stockpiles generated from the Perimeter Ditch construction excavation and the MCIC expansion do not show evidence of human fecal impacts. Although total coliform was detected in all 4 composite samples from the Perimeter Ditch excavated soils, no fecal coliform or human fecal biomarkers were detected.

Stockpiled soil excavated from the Perimeter Ditch was tested for petroleum hydrocarbons as diesel and motor oil. All 4 samples detected diesel and 3 samples detected motor oil. The detected levels were consistent with petroleum levels detected in baseline soil and were less than regulatory limits.

Stockpiled soils were also tested for total metals using standard methods and for soluble metals using the toxic characteristic leaching procedure as well as the waste extraction test using de-ionized water. No metals result exceeded the total threshold limit concentrations, RCRA waste levels, or the soluble threshold limit concentration for CAM-17 metals plus aluminum and iron. The stockpiled soils are suitable for use as backfill material at the facility.

4.4.2 Perimeter Ditch Soil

Soil collected from the Perimeter Ditch show detections of nitrate as nitrogen, chloride, ammonia, and fecal coliform; however, no human fecal biomarkers have been detected in any soil or water sample collected from the Perimeter Ditch or soils excavated from the Perimeter Ditch. Qualitative data continually show that fecal detections in Perimeter Ditch water samples is from an avian source and that no soil contamination from the sewer system has been detected.

Perimeter ditch soils were tested for metals using standard methods and for soluble metals using the toxic characteristic leaching procedure as well as the waste extraction test using de-ionized water. No metals result exceeded the total threshold limit concentrations or the soluble threshold limit concentration for CAM-17 metals plus aluminum and iron. Perimeter Ditch soil is similar to baseline soil with regard to metals concentration.

4.4.3 Baseline Soil

All 5 baseline soil samples detected diesel range hydrocarbons and 4 samples detected motor oil range hydrocarbons. As previously mentioned, these results are likely indicative of a natural carbon source rather than an anthropogenic source. The Eocene lone Formation described in Section 1.2.1 contains lignite which is a low-grade coal and is likely the source for these heavier-hydrocarbon detections.

Total coliform was reported in all 5 baseline soil samples except the sample BS-4 collected near the WWTP. Fecal coliform was detected in sample BS-3, collected near the bridge crossing Mule Creek; however, human fecal biomarkers were not detected in sample BS-3.

Metals results for the baseline soil samples are similar in concentration to the Perimeter Ditch soils and stockpiled soils. Additionally, no metal result from any baseline soil sample collected was greater than the total threshold limit concentration or the soluble threshold limit concentration.

The abundance of aluminum and iron in the underlying Ione Formation geology is likely contributing to the higher levels of these metals in soil samples results shown in Appendix 2, Table 2-21; in the leachability test results in Appendix 2, Table 2-22; and detected in stormwater and non-stormwater runoff.

4.4.4 Molecular Source Tracking Soil Sampling

The 5 baseline soil samples collected on April 27, 2018, from the prison property and the 5 soil samples collected on June 13, 2018, from the MCIC expansion stockpiled soils were analyzed for human fecal biomarkers, and the qualitative results indicated no human biomarkers were detected.

4.5 Data Trends

4.5.1 Analytical Data Graphs

Appendix 20 includes graphs of oil & grease and TPHD, biological constituents, as well as various general chemistry and metals constituents. The graphed data is from the sampling results and generally extends to August 31, 2019.

The graphs of aluminum and iron generally show a direct relationship with total suspended solids. The graphs of magnesium and zinc generally show a direct relationship to total dissolved solids. The higher concentrations of aluminum, iron, and magnesium are likely due to the geology of the area as described in Section 1.2.1 and as such, have led to the WQO exceedances. Galvanized metal at the facility is the likely source of zinc.

The graphs of oil & grease show somewhat of a relationship with rainfall. These concentrations are also likely due to the geology of the area as lignites are most likely the source of the heavier hydrocarbon as described in the Moore Twining lab reports AJ flag designation and the Alpha email describing the petroleum detections as heavier than motor oil. See Appendix 18.

4.5.2 Cation and Anion Plots (Piper Plots)

Piper plots are used to provide a geochemical assessment of water chemistry that graphically illustrates the dominant ions present at each of the respective sampling locations. Concentrations of major cations (calcium, magnesium, sodium, and potassium) and anions (sulfate, bicarbonate, and chloride) were used to construct the Piper plots. The Piper plot in Figures 22-1 was constructed with samples collected from the sanitary sewer effluent at the WWTP. Piper plots in Figures 22-2 through 22-8 were constructed with all samples collected from outfalls at GT-2, GT-3, GT-4, GT-9 and the Upstream, Midstream, and Downstream sample locations from Mule Creek and comparing those samples to samples collected of sanitary sewer effluent at the WWTP. Figure 22-9 was constructed using the averages of all samples at GT-2, GT-3, GT-4, GT-9, Upstream, Midstream, Downstream, and potable water compared to the average of the samples of sanitary sewer effluent at the WWTP.

The Piper plots include anion and cation percentages of the following sample locations and dates.

- Annual wastewater effluent samples from 2007 (Carlton, 2007), 2013 through 2017 (personal communication 2018, MCSP), and a 2018 pre-treatment clarifier sample. Collectively these samples are identified as WWTP. See Figure 22-1.
- All GT-2 samples collected from March 2018 to October 2018 versus WWTP, see Figure 22-2
- All GT-3 samples collected from January 2018 to August 2019 versus WWTP, see Figure 22-3
- All GT-4 samples collected from January 2018 to October 2019 versus WWTP, see Figure 22-4
- All GT-9 samples collected from March 2018 to March 2019 versus WWTP, see Figure 22-5
- All Upstream samples collected from April 2018 to August 2019 versus WWTP, see Figure 22-6
- All Midstream samples collected from March 2018 to May 2018 versus WWTP, see Figure 22-7
- All Downstream samples collected from March 2018 to August 2019 versus WWTP, see Figure 22-8
- Averages of sample locations GT-2, GT-3, GT-4, GT-9, Upstream, Midstream, Downstream, Wells B4 and R2, potable water, and sanitary sewer effluent at the WWTP, see Figure 22-9.

Water chemistry results show that constituents detected in water discharged from outfalls to the Perimeter Ditch are dissimilar to wastewater from the sanitary sewer effluent at the WWTP. The geochemistry of the water, with respect to cation and anion characteristics, from the MCSP stormwater collection system is more similar to surface water from Mule Creek Upstream, Midstream, and Downstream of MCSP than to sanitary sewer effluent at the WWTP.

4.5.3 Rainfall, Flow at GT-3 and GT-9, and Irrigation Graphs

Appendix 4 includes graphs of daily rainfall, daily flow at GT-3 and GT-9, and daily irrigation. The graph “4-1: MCSP Rainfall Through Time” shows daily rainfall from January 2018 through August 2019. The graph “4-2: Rainfall and Irrigation Through Time” shows daily rainfall from November 2018 through August 2019 and daily irrigation from May 2019 through August 2019 (daily irrigation data collection began in May 2019 subsequent to the installation of flow monitoring equipment). The data trend shows that landscape irrigation at the facility begins at the end of the storm season.

The graph “4-3: Daily Flow at GT-9 (SO) and Rainfall through Time” shows daily flow at GT-9 and daily rainfall data from November 2018 through August 2019. The data trend shows a direct relationship between rainfall and the flow response at GT-9 from November 2018 through May 2019. After May 2019, the graph shows that daily flow at GT-9 has essentially ceased and is predominantly dry. The graph “4-4: Daily Flow at GT-9 (SO) and Daily Irrigation through Time” suggests that the daily flow at GT-9 subsequent to May 2019 is not influenced by daily irrigation trends.

The graph “4-5: Daily Flow at GT-3 (MO) and Rainfall through Time” shows daily flow at GT-3 and daily rainfall data from November 2018 through August 2019. The data trend shows a direct relationship between rainfall and the flow response at GT-3 from November 2018 through May 2019. After May 2019, the graph shows that daily flow at GT-3 continues with no corresponding rainfall. The graph “4-6: Daily Flow at GT-3 (MO) and Daily Irrigation through Time” shows that the daily flow at GT-3 subsequent to May 2019 corresponds to the daily irrigation, suggesting that the continued flow at GT-3 during non-rain events is influenced by daily irrigation trends.

5.0 Recommendations

The following recommendations are based on observations made from site investigation activities conducted at MCSP from January 2018 through August 2019. As discussed in the previous sections, this investigation has confirmed there are no cross-connections between the stormwater and sanitary sewer collection systems, nor has it produced any information indicating that the stormwater collection system has been or is being contaminated with sewage, wastewater, or grey water. Although no significant issues related to stormwater contamination were identified, the following recommendations will facilitate continued compliance.

5.1 Operational

1. Discontinue redirection of flow from the stormwater collection system to the wastewater treatment plant and resume discharge to Mule Creek.
2. Continue to maintain the grease traps, and conduct monthly inspections (preventive maintenance).
3. Continue annual training to individuals working in areas that may impact the stormwater collection system to ensure an understanding of acceptable and prohibited practices.
4. Maintain a semi-annual sweeping schedule for the Center Corridor and Outer Perimeter Roads to remove gravel and debris.
5. Inspect the Stormwater Collection System, including: drop inlets, the Perimeter Ditch, the Interior Perimeter Road, and the area between the Interior Perimeter Road and the Yards, before and after each rain season. Address any issues as necessary.
6. Maintain sediment traps and screens at outfalls.
7. Continue efforts to abate bird nesting in accordance with applicable law.
8. Maintain MS4 stormwater program.

5.2 Repairs to Stormwater Collection System

The findings in the CCTV investigation were identified using the National Association of Sewer Service Companies (NASSCO) code system. The majority of the findings in the stormwater collection system were related primarily to Joint defects such as gasket material showing or pipe separation. After reviewing all the findings presented in the CCTV logs, for most of the joint defects identified, they were intact and do not require repair. However, in order to minimize debris, gravel, sediment accumulation and infiltration of groundwater, repairs to the stormwater collection system are recommended for some segments and joint locations. These repairs are summarized in Table 23-1, 23-2, and illustrated in Appendix 23.

To minimize debris, gravel and sediment accumulation in the stormwater collection system, the following physical repairs should be considered:

1. Conduct biennial inspection of storm drain line from SWMH506 to DI-A1 via CCTV monitoring of structural issues, particularly hinge-style cracks and the longitudinal cracks. Consider structural lining rehabilitation if inspection indicates structural failure to the RCP storm drain line.
2. Spot repairs to the stormwater collection system throughout the MCSP facility as identified in Appendix 23.

3. Patch and slurry seal the asphalt within the Center Corridor.
4. Reduce soil erosion within the off-limits area between Housing Units and the LEF, and between the Exterior Perimeter Road and the LEF.
5. Repave the Interior Perimeter Road.
6. Repair segments of the stormwater collection system within the "A" and C Yards.
7. Repair segment of the stormwater collection system in vicinity of the main entrance between GT2OUT to AEPGT2.
8. Repair segment of the stormwater collection system in vicinity of housing unit Y15 between C207 to C54.

5.3 Repairs to Sanitary Sewer System

The findings in the CCTV investigation followed the NASSCO code system. The majority of the findings in the sanitary sewer collection system were related to minor or moderate corrosion in the ductile iron pipe under the buildings, and joint defects such as gasket material showing or pipe separation. After reviewing all the findings presented in the CCTV logs, most of the joint defects identified were intact and do not require repair. The extent of the corrosion observed appeared typical for 30-year-old ductile iron pipe but was not excessive; pipe material was observed to be intact and does not represent cause for concern at this time.

However, in order to minimize potential exfiltration of sewage, or infiltration of groundwater, repairs to the sanitary sewer collection system are recommended for some segments and joint locations. These repairs are summarized in Appendix 23.

1. Inspect all sanitary sewer manholes and rehabilitate, as appropriate. Make recommended repairs as identified in Table 2-23.
2. Spot repairs and line segment repairs to the sanitary sewer collection system throughout the MCSP facility as identified in Appendix 23.
3. Replace sanitary sewer line segment between SSMH210 and SSMH207 and increase to 8-inch diameter.
4. Replace sanitary sewer line and select laterals to the building connection between SSMH403 to SSMH401.

5.4 Monitoring and Reporting

This investigation has confirmed no cross-connections between the stormwater and sanitary sewer collection systems and no impact to the stormwater collection system due to sewage, wastewater, or grey water. Effective April 24, 2019, MCSP was officially designated as an official non-traditional Phase II permittee under the Small MS4 General Order. Therefore, we recommend cessation of all ordered sampling and associated activities, domestic well monitoring, and development of a final waste disposal plan. Additionally, the SCCWRP surface water monitoring plan will be implemented throughout the wet season and MCSP will submit results from the monitoring program to the CVRWQCB in the fall of 2020.

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EXHIBIT I

APPENDIX 2

INSTRUCTIONS FOR NO EXPOSURE CERTIFICATION (NEC)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES (GENERAL PERMIT)

This Attachment provides general guidance instructions and guidance for obtaining NEC coverage. The actual NEC requirements are primarily contained in Section XVII of this General Permit.

A. INSTRUCTIONS:

Who May File for NEC Coverage

Sections 301 and 402(p) of the Clean Water Act (CWA), and Sections 1311 and 1342(p) of 33 United States Code prohibit the discharge of storm water associated with industrial activity to waters of the United States without a National Pollutant Discharge Elimination System (NPDES) permit. However, NPDES permit coverage is “conditionally excluded” for discharges of storm water associated with industrial activities (industrial storm water discharges) if the Discharger can certify that a condition of “No Exposure” exists at the industrial facility. A condition of “No Exposure” means that a Discharger’s industrial activities and materials are not exposed to storm water. Industrial storm water discharges from construction and land disturbance activities are ineligible for the NEC coverage. Dischargers who file valid NECs in accordance with these instructions are not required to implement Best Available Technology Economically Achievable /Best Conventional Pollutant Control Technology and comply with the Storm Water Pollution Prevention Plan (SWPPP) and monitoring requirements of this General Permit.

Obtaining and Maintaining NEC Coverage

A Discharger must electronically certify and submit NEC Permit Registration Documents (PRDs) via State Water Resources Control Board’s (State Water Board’s) Storm Water Multi-Application and Report Tracking System (SMARTS) to obtain NEC coverage. This conditional exclusion does not become effective until the PRDs are submitted and the annual fee is paid. Upon receipt of the annual fee, the Discharger will electronically receive an NEC acceptance notification via SMARTS, which will include a Waste Discharge Identification (WDID) number. A Discharger must maintain a condition of “No Exposure” at the facility for the conditional exclusion to remain applicable. The Discharger must annually electronically re-certify the NEC via SMARTS to confirm that the conditions of “no exposure” are being maintained. If conditions change resulting in the exposure of materials and activities to storm water, the Discharger must electronically certify and submit PRDs via SMARTS for Notice of Intent (NOI) coverage under the General Permit for Storm Water Discharges Associated with Industrial Activities (General Permit).

Fees

First time NEC coverage PRDs and the annual re-certification require a fee. Fees may be changed by State Water Board regulation, independent of this General Permit.

How to Prepare and Submit PRDs for NEC Coverage

A Discharger must electronically certify and submit PRDs for NEC coverage in accordance with the instructions provided at the State Water Board web site for SMARTS:

<https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp>

A Discharger with multiple facilities that satisfy the conditions of “No Exposure” must certify and submit PRDs for each facility. The Discharger is required to inspect and evaluate each individual facility to determine the condition of No-Exposure. The Discharger must retain an electronic or paper copy of the NEC coverage acceptance notification for their records.

The following information is required in the PRDs:

Discharger Information

1. The legal business name of the business entity, public organization, or any other entity that operates the facility described in the certification. The name of the operator may or may not be the same as the name of the facility. The operator is the legal entity that controls the facility operations, not the plant or site manager.
2. The mailing address of the facility operator, including the city, state, and zip code.
3. The facility operator contact person, telephone number and e-mail address.

INSTRUCTIONS FOR NO EXPOSURE CERTIFICATION (NEC)**Facility Information**

4. The legal business name of the facility.
5. The total acreage of the facility associated with industrial activity. (Facility size in acres is calculated by taking the square feet and dividing by 43,560.)
6. The complete physical street address (e.g. the street address used for express deliveries), including the city, State, and zip code. Do not use a P.O. Box number. If a physical street address does not exist, describe the location or provide the latitude and longitude of a point within the facility boundary. Latitude and longitude are available from United States Geological Survey quadrangle or topographic maps, or may be found using a mapping site on the internet.
7. The facility contact person, telephone number, and e-mail address.
8. The 4-digit Standard Industrial Classification (SIC) code that represents the facility primary industrial activity. Provide a brief description of the primary industrial activity. If applicable, enter other significant SIC codes and descriptions. To obtain these codes, see the 1987 SIC Manual or the Occupational Health and Safety Administration's site:

<http://www.osha.gov/pls/imis/sicsearch.html>
9. If the facility is currently covered under the General Permit, include the WDID number. The WDID number will be used at a later date to terminate the facility's coverage under the General Permit as necessary.

Facility Mailing or Billing Address

Completion of this item is required the facility mailing address or billing address differs from the physical facility address provided above. The Discharger must indicate which address the annual fee invoice must be sent to if the State Water Board is unable to transmit the invoice electronically.

Site Maps

Site maps must be prepared and submitted in accordance with the requirements in Section X.E of this General Permit.

NEC Checklist

The Discharger must evaluate the eleven major areas that storm water exposure may occur, per the listing at the end of this appendix. The Discharger must be able to certify

that none of these major areas have potential for exposure. If the Discharger cannot certify that every one of the eleven major areas do not have exposure, a potential for exposure exists at the facility and the facility is not eligible for NEC coverage. The Discharger must obtain (or continue) NOI coverage under this General Permit if the facility is not eligible for NEC coverage. After obtaining NOI coverage, the Discharger may implement facility modifications to eliminate the potential for a discharge of storm water exposed to industrial activity, and then change their NOI coverage to NEC coverage by certifying the conditions of "No Exposure" are met.

Certification

Federal and state statutes provide for severe penalties for Dischargers that submit false information on the PRDs. Dischargers shall certify and submit PRDs via SMARTS for NEC coverage in accordance with Electronic Signature and Certification Requirements in Section XXI.K of this General Permit.

B. GUIDANCE:

Contact your local Regional Water Quality Control Board (Regional Water Board) office with questions regarding this guidance.

1. Who is Eligible to Qualify for the No Exposure Certification (NEC) - Conditional Exclusion?

All industrial categories listed in Attachment A of this General Permit (excluding construction) are eligible to apply for the NEC coverage.

2. Limitations on Eligibility for NEC coverage

In addition to construction projects not being eligible, the following situations limit the applicability of NEC coverage:

- a. NEC coverage is available on a facility-wide basis only, not for individual drainage areas or discharge locations. Generally, if any exposed industrial materials or activities exist, or have a potential to exist, anywhere at a facility, NEC coverage is not applicable to the facility. If the Regional Water Board determines that a facility does have exposure or the facility's storm water discharges have a reasonable potential to cause or contribute to an exceedance of applicable water quality objectives/standards, the Regional Water Board can deny NEC coverage.
- b. If changes at a facility result in potential exposure of industrial activities or materials, the facility is no longer eligible for NEC coverage. Dischargers

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shall register for NOI coverage under this General Permit prior to a planned facility change that will cause exposure, or within seven (7) calendar days after unplanned exposure occurs. If an unplanned exposure occurs due to an emergency response or one-time event that is unlikely to re-occur, a Discharger may contact the Regional Water Board to discuss whether the requirement to obtain NOI coverage can be waived. Unless the Discharger receives a written waiver from the Regional Water Board, the Discharger shall electronically certify and submit PRDs to obtain NOI coverage.

- c. Current contamination resulting from historic industrial practices at the facility (e.g., soil contamination, groundwater contamination, etc.) represents a condition of exposure to waters of the United State; therefore a facility with historic contamination is not eligible for NEC coverage.

3. What is the Definition of No Exposure?

- a. No Exposure means all industrial materials and activities are protected by a storm-resistant shelter to prevent exposure to rain, snow, snowmelt and/or runoff.
- b. Industrial materials and activities include, but are not limited to, material-handling equipment or activities; industrial machinery; raw materials, intermediate products, by-products, and final products; or waste products.
- c. Material handling activities include storage, loading and unloading, transport, or conveyance of any raw material, intermediate product, by-product, final product, or waste product.
- d. Final products intended to be used outdoors (e.g., automobiles) typically pose little risk of polluting storm water since not typically contaminated with pollutants that become mobilized by contact with storm water. Final products are exempt from the requirement for protection by a storm-resistant shelter to qualify for no exposure. Similarly, containers, racks, and other transport platforms (e.g., wooden pallets) used for the storage or conveyance of final products may also be stored outside if pollutant-free or pollutants do not mobilize via contact with storm water.
- e. Storm-resistant shelters include: (1) completely roofed and walled buildings or structures, (2) structures with only a top cover (no side coverings) supported by permanent supports, provided material within the structure is not subject to wind dispersion (sawdust, powders, etc.) or being

tracked out of the facility, and is not a source of pollutants in the industrial storm water discharges.

4. Industrial Materials/Activities Not Requiring a Storm-Resistant Shelter

The intent of the "No Exposure" exclusion is to maintain a condition of permanent "No Exposure". A storm-resistant shelter is not required for the following industrial materials and activities:

- a. Drums, Barrels, Tanks, and Similar Containers that are sealed ("sealed" means banded or otherwise secured and without operational taps or valves), are not exposed provided those containers are not deteriorated, do not contain residual materials on the outside surfaces, and do not leak. Drums, barrels, etc., that are not opened while outdoors, or are not deteriorated or leaking, and that do not pose a risk of contaminating storm water runoff. Consider the following when making a "No Exposure" determination:
 - i. Materials shall not be added or withdrawn to/from containers while outdoors
 - ii. Simply moving containers while outside does not create exposure unless exposure occurs when pollutants are "tracked out" by the container handling equipment or vehicles.
 - iii. All outdoor containers shall be inspected to ensure they are not open, deteriorated, or leaking. When an outdoor container is observed as opened, deteriorated, or leaking, the container must immediately be closed, replaced, or sheltered. Frequent detection of open, deteriorated, or leaking containers, or failure to immediately close, replace, or shelter opened, deteriorated or leaking containers will cause a condition of exposure.
 - iv. Containers, racks, and other transport platforms (e.g., wooden pallets) used with drums, barrels, etc., can be stored outside providing they are contaminant-free and in good repair.
- b. Above Ground Storage Tanks (ASTs) In addition to generally being considered as not exposed, ASTs may also be exempt from the prohibition against adding or withdrawing material to/from external containers. ASTs typically use transfer valves to dispense materials that support facility operations (e.g., heating oil, propane, butane, chemical feedstock) or fuel for delivery vehicles (gasoline, diesel, compressed natural gas). For operational

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ASTs to qualify for “No Exposure”, the following must be satisfied:

- i. The tank(s) shall be physically separated from and not associated with vehicle maintenance operations.
 - ii. There shall be no leaks from piping, pumps, or other equipment that has the potential to come in contact with storm water.
 - iii. Wherever feasible, the tank(s) shall have secondary containment (e.g., an impervious dike, berm or concrete retaining structure) to prevent runoff in the event of a structural failure or leaking transfer valve. Note: any resulting unpermitted discharge is in violation of the CWA.
- c. Lidded Dumpsters. Lidded dumpsters containing waste materials, providing the containers are completely covered and nothing can drain out holes in the bottom, spilled when loaded into the dumpster, or spilled in loading into a garbage truck. Industrial waste materials and trash that is stored uncovered is considered exposed.
- d. Adequately maintained vehicles, such as trucks, automobiles, forklifts, trailers or other general-purpose vehicles found onsite - but not industrial machinery that are not leaking, are in good repair or are not otherwise a potential source of contaminants:
- i. Vehicles passing between buildings may be exposed to storm water, however if the vehicles are adequately maintained, a condition of exposure may not exist. Similarly, non-leaking vehicles awaiting maintenance at vehicle maintenance facilities are not considered as potential exposure. However, vehicles that have been washed or rinsed that are not completely dry prior to outside exposure have the potential to cause a condition of exposure. Vehicles that track materials out of the facility are considered to be mobilizing pollutants. Vehicles that exit maintenance bays are also considered to cause exposure.
 - ii. The mere conveyance between buildings of materials / products that are otherwise not allowed to be stored outdoors, does not create a condition of exposure, provided the materials/products are adequately protected from storm water and do not have the potential to be released as a result of a leak or spill.
- e. Final products built and intended for use outdoors (e.g., new cars), provided the final products have not deteriorated, are not contaminated, or are not otherwise potential sources of contaminants.
- Types of final products not qualifying for a certification of “No Exposure”:
- i. Products that may be mobilized in storm water discharges (e.g., rock salt).
 - ii. Products, which may, when exposed, oxidize, deteriorate, leak, or otherwise be a potential source of contaminants (e.g., junk cars, stockpiled train rails).
 - iii. “Final” products that are, in actuality, “intermediate” products. Intermediate products are those used in the composition of yet another product (i.e., sheet metal, tubing, and paint used in making tractors).
 - iv. Even if the intermediate product is “final” for a manufacturer and destined for incorporation in a “final product intended for use outdoors,” the product is not allowed to be exposed because they may be chemically treated or are insufficiently impervious to weathering.
- f. Special Conditions for Construction Activities
Permanent, uninterrupted sheltering of industrial activities or materials may not always be possible during facility renovation or construction. When such circumstances exist, the Discharger is not required to obtain coverage under an NPDES permit as long as the following conditions are met:
- i. Materials and activities are protected with temporary covers or shelters (i.e. tarpaulins);
 - ii. Temporary covers or shelters prevent the contact of storm water to materials and activities;
 - iii. Materials are subject to wind dispersion are not stored under temporary sheltering;
 - iv. Temporary shelters are only used when necessary during facility renovation or construction and until permanent storm-resistant shelters as described above are available; and,
 - v. Temporary shelters are only used for a single period of ninety days or less. (Facilities with construction and renovation projects that will need the use of temporary shelters beyond 90 days, or that will require multiple periods of ninety

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days or less, are required to be covered by an NPDES permit.)

5. Other Potential Sources of Contaminants

- a. Particulate Emissions from Roof Stacks and/or Vents: Deposits of particles or residuals from roof stacks/vents that have the potential to be mobilized by storm water runoff are considered exposed.
- b. Pollutants Potentially Mobilized by Wind: Windblown materials cause a condition of exposure. Materials sheltered from precipitation are be deemed exposed if the materials has a potential to be mobilized by wind.

6. Certifying a Condition of “No Exposure”

To obtain the NEC coverage, the Discharger must electronically certify and submit PRDs via SMARTS that the facility meets the definition of “No Exposure” and pay an annual fee. The Discharger must **submit PRDs for NEC coverage even if the Discharger was not previously required to file for NEC coverage under the previous General Permit**. These PRDs include a checklist requiring the Discharger to evaluate eleven major areas to determine whether there is exposure of industrial activities and materials at the facility. To qualify for NEC coverage the Discharger must satisfy all the NEC coverage conditions in this General Permit and certify that there is “No Exposure”. The checklist: 1) aids the Discharger in determining if its facility is eligible for NEC coverage, and 2) furnishes the necessary documentation supporting relief from the General Permit’s requirement of NOI coverage. Additionally, Dischargers with NEC coverage are not required to develop and implement SWPPPs or comply with the monitoring requirements.

If a Discharger cannot certify that there is “No Exposure” at the facility, the Discharger must make appropriate changes at the facility to eliminate exposure prior to registering for future NEC coverage. Facility changes must remove all potential for pollutant exposure to storm water.

An annual inspection and evaluation, re-certification and fee are required thereafter.

7. Other NEC coverage Facts:

- a. NEC coverage is only valid if the condition of “No Exposure” exists and is reasonably expected to continue to exist. Dischargers shall electronically certify and submit PRDs for NOI coverage when the condition of “No Exposure” is no longer expected to exist.
- b. Dischargers must file PRDs for NEC coverage for each qualifying facility.
- c. An NEC must be submitted for each separate facility qualifying for the “No Exposure” conditional exclusion.
- d. An NEC is non-transferable. If a new operator takes over facility operations, the new operator shall electronically certify and submit PRDs and applicable fees for new NEC coverage via SMARTS prior to the operations transfer. NEC coverage cannot be transferred from one physical location to another regardless of ownership.

8. Operators May Be Required to Obtain NOI Coverage Based on the Protection Of Water Quality?

Operators who certified that their facilities qualify for NEC coverage may, nonetheless, be required by the Regional Water Board to obtain NOI coverage if the Regional Water Board determines that the facility’s discharge has the potential to cause or contribute to an exceedance of applicable water quality objectives/standards or determines that exposure exists at the facility. The Regional Water Board may request information and/or inspect the facility to assess potential water quality impacts and to determine if NOI coverage is required. The Discharger shall take appropriate actions to ensure compliance with the General Permit.

9. Steps to Obtain NEC coverage

This section will walk you through the process of obtaining NEC coverage.

Step 1: Determine if your facility is subject to this General Permit (refer to Attachment A of this General Permit). If yes, proceed to Step 2. If not, stop here.

If your facility is included in Attachment A and conducts industrial activities, you are required to **either** register for NOI coverage or NEC coverage.

Step 2: Determine if your regulated industrial activity meets the definition of “No Exposure” and qualifies for the exclusion from permitting. If yes, proceed to Step 3. If no, stop here and obtain NOI coverage. An

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evaluation of the facility must be conducted by facility personnel familiar with the facility and its operations. Inspect all facility areas and potential pollutant sources to determine whether the facility satisfies the "No Exposure" conditions.

Step 3: Electronically certify and submit the PRDs for NEC coverage via SMARTS and mail the annual fee to the State Water Board at the following address:

SWRCB
Surface Water Permitting Section
PO Box 1977
Sacramento, CA 95812-1977

To maintain NEC coverage, the NEC must re-certify and pay a fee annually. This may only be done if the condition of "No Exposure" continues to exist at the facility.

Step 4: If requested, staff from the Water Boards, local Municipal Separate Storm Sewer System (MS4), or United States Environmental Protection Agency must be allowed to inspect your facility. All inspection reports will be made publicly available.

Step 5: Maintain a condition of "No Exposure".

- NEC coverage is not a blanket exemption. Therefore, if facility physical or operational changes occur which cause exposure of industrial activities or materials to storm water, the Discharger must then immediately comply with all the requirements of this General Permit, including obtaining NOI coverage as applicable.
- To maintain the condition of "No Exposure", the Discharger shall annually evaluate the facility to assure that the conditions of "No Exposure" still exist. More frequent evaluations may be necessary in circumstances when facility operations are rapidly changing.
- Failure to maintain the condition of "No Exposure" or otherwise obtain NOI coverage may lead to the unauthorized discharge of storm water associated with industrial activity to waters of the United States, resulting in penalties under the CWA and Water Code.

C. Frequently Asked Questions:

Q1. Who is eligible for NEC Coverage?

- A. Any Discharger operating a facility described in Attachment A may register for NEC coverage if their facility has a condition of "No Exposure".

Q2. How does an eligible Discharger file for NEC coverage and where is the annual fee sent?

- A. The PRDs for NEC coverage shall be electronically certified and submitted in accordance with the instructions provided in SMARTS at the State Water Board website at: <https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp>. The fee is currently \$242, but may be changed by regulation. Once NEC coverage is accepted, an invoice will be electronically sent to the Discharger. The annual fee and invoice shall be sent to:
- State Water Resources Control Board
Division of Water Quality
Attention: Industrial Storm Water Unit
P.O. Box 1977
Sacramento, CA 95812-1977

Q3. If my facility's storm water discharges are covered by an individual permit, can I file for NEC coverage?

- A. Yes. Storm water discharges covered by an individual permit are eligible for NEC coverage if the conditions at the facility satisfy the definition of "No Exposure" and you obtain approval to terminate individual permit coverage from the local Regional Water Board prior to PRD submittal. Approval from the Regional Water Board is mandatory. Many individual permits, for example, contain numeric storm water effluent limitations ("antibacksliding" provisions may prevent these facilities from qualifying for the "No Exposure" conditional exclusion).

Q4. My facility was originally excluded from the Phase I regulations because it was classified as a "light industrial facility". The facility has never had any exposure to storm water runoff. Do I now need to certify that the facility meets the No Exposure Exclusion from NPDES Storm Water Permitting?

- A. Yes. See answer provided to question number 9, "What is the exclusion "conditional" upon?"

Q5. Do I have to file a Notice of Termination (NOT) and a register for NEC coverage if my facility has NOI coverage and qualifies for NEC coverage?

- A. No. You are only required to register for NEC coverage. You must provide the WDID# in your NEC coverage PRDs in order for the State Water Board to change permit coverage status.

Q6. When and how often is a NEC coverage re-certification required?

INSTRUCTIONS FOR NO EXPOSURE CERTIFICATION (NEC)

- A.** Re-certification of NEC coverage is required annually (assuming the facility maintains its “No Exposure” status). The State Water Board will electronically transmit an NEC re-certification and annual fee notification to each facility operator who has filed for NEC coverage.

New Dischargers must register for NEC coverage before the commencement of facility operations. Dischargers that fail to file for NEC coverage or apply for NOI coverage before the commencement of facility operations will be out of compliance and subject to enforcement.

Existing Dischargers have two options for submitting NECs:

1. Facility operators of “light industrial” facilities who have been operating under their original, no-certification-required permitting exemption must submit the NEC at any time prior to October 1, 2015. Dischargers who have not submitted an NEC or applied for permit coverage by this due date will be considered out of compliance and subject to Water Board enforcement.
2. Dischargers who have NOI coverage may register for NEC coverage at any time following completion of facility changes that result in the condition of “No Exposure”.

Q7. What happens if I know of changes that may cause exposure?

- A.** If exposure has the potential to occur in the near future due to some anticipated change at the facility, the Discharger must obtain NOI coverage to avoid potential enforcement for violations of this General Permit.

Q8. Is the NEC coverage transferable to a new Discharger?

- A.** No. If a new operator takes over your facility, the new operator must register for new NEC coverage prior to the transfer. A new application fee is required.

Q9. What is the exclusion “conditional” upon?

- A.** The exclusion from permit coverage requirements is “conditional” upon the certification of the Discharger that the facility does not have exposure of materials or activities to storm water. PRDs for NEC coverage shall be electronically submitted to the State Water Board and will not be accepted if incomplete. The Regional Water Board may review the information, contact and/or inspect the facility, and invalidate the NEC and require the Discharger to obtain NOI coverage. PRDs are

public documents and will be available for public review via SMARTS.

Q10. Can secondary containment around an outdoor exposed area qualify for a condition of “No Exposure”?

- A.** If secondary containment is engineered to always prevent a discharge of collected rainfall (based on the historical rainfall record) and a simultaneous spill of any other industrial materials or liquids, the “No Exposure” condition may be claimed. Note that there must be proper disposal of any water or liquids collected from the containment (i.e., discharged in compliance with another NPDES permit, treated and discharged to the sanitary sewer, or trucked offsite to an appropriate disposal/treatment facility).

D. NEC Checklist

An NEC Checklist must be prepared by the Discharger demonstrating that: (1) the facility has been evaluated, (2) none of the following materials or activities are, or will be in the foreseeable future, exposed to precipitation, and (3) all unauthorized NSWDS have been eliminated:

1. Using, storing or cleaning industrial machinery or equipment, and areas where residuals from using, storing or cleaning industrial machinery or equipment remain and are exposed;
2. Materials or residuals on the ground or in storm water inlets from spills/leaks;
3. Materials or products from past industrial activity;
4. Material handling equipment (except adequately maintained vehicles);
5. Materials or products during loading/unloading or transporting activities;
6. Materials or products stored outdoors (except final products intended for outside use, i.e., new cars, where exposure to storm water does not result in the discharge of pollutants);
7. Materials contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers;
8. Materials or products handled/stored on roads or railways owned or maintained by the Discharger;
9. Waste material (except waste in covered, non-leaking containers, i.e., dumpsters);

INSTRUCTIONS FOR NO EXPOSURE CERTIFICATION (NEC)

10. Application or disposal of processed wastewater
(unless already covered by an NPDES permit); and
11. Particulate matter or visible deposits of residuals
from roof stacks/vents evident in the storm water
outflow.

EXHIBIT J

INSPECTION REPORT

11 February 2021

DISCHARGER:	Mule Creek State Prison, WDID # 5S03NEC004161
LOCATION & COUNTY:	4001 Highway 104, Near Lone, Amador County
CONTACT(S):	Gregor Larabee, Anthony Orta (Wastewater Treatment Plant operator)
INSPECTION DATE:	27 January 2021
INSPECTED BY:	Brett Stevens, Central Valley Regional Water Quality Control Board

INSPECTION COMMENTS:

On 27 January 2021, Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff conducted an inspection of the industrial areas/activities that are covered by Mule Creek State Prison's (MCSP) No Exposure Certification (NEC). The NEC is a compliance option under the General Permit for Storm Water Discharges Associated with Industrial Activities (IGP) that allows dischargers to certify that there is no stormwater exposure to industrial equipment, materials, activities, or waste for qualifying industrial activities. For MCSP, the qualifying industrial activities are textile manufacturing (Standard Industrial Classification [SIC] Code 2399), coffee roasting (SIC Code 2095), and meat packing (SIC Code 2011).

The NEC exempts MCSP from having to prepare a Stormwater Pollution Protection Plan, or to collect stormwater analytical data. These records were therefore not audited as part of this inspection. MCSP provided facility maps as part of the NEC application. These maps are included herein, referenced below, and listed here:

- Figure 1 – Mule Creek Facility Layout and Drainage
- Figure 2 – NEC for Sewing, Coffee Roasting, and Textiles
- Figure 3 – NEC for Sewing and Meat Packing
- Figure 4 – MCIC Facility Layout and Drainage
- Figure 5 – NEC for Sandwich Packaging

In addition to the areas/activities covered by the NEC, Board staff also inspected the following MCSP features:

- A laundry area
- Several outdoor maintenance facility equipment/materials storage areas
- A vehicle fueling, washing, and maintenance area
- The prison warehouse (exterior only)
- Two onsite vocational training equipment storage areas
- A sandwich shop loading dock; and
- The Wastewater Treatment Plant's (WWTP) sludge press, disinfectant storage tank, and hazardous materials storage area.

Board staff met with MCSP representatives at the main gate at 10am. In addition to Board staff, the following personnel were present during the inspection:

Gregor Larabee, Chief, Environmental and Regulatory Compliance Section
Estevan Fregeau, Chief Engineer
Daniel Bowers, Supervisor of Building Trades
Terry Bettencourt, Regional Manager, Capital Renovation and Maintenance Services

The lead MCSP staff, Mr. Larabee, consented to the inspection and for photographs to be taken during the inspection, with the caveat that Board staff was not to photograph the perimeter security at the prison.

INSPECTION OBSERVATIONS:

- The weather on the day of the inspection was cold and windy. There was rain the night before, but no rain during the inspection. Owing to the rain, wet concrete/asphalt and water puddles were observed in outside areas.
- The inspection began in the laundry room, which was found to be clean and orderly (see Photo 1). According to MCSP staff, floor drains in this room and all other interior rooms are plumbed to the onsite Wastewater Treatment Plant (WWTP). The loading dock for the laundry room was found to be clean, with no visible sources of pollution (see Photo 2). The laundry room location is shown on Figure 3 (see below) as the area to the right of the area marked "Cal PIA Meat Packing".
- The meat packing room was found to be clean and orderly; additionally, the covered loading dock for the meat packing room, and a storm drain outside the loading dock, were found to be clean, with no visible sources of pollution (see Photos 3, 4, and 6). The meat packing room is shown in Figure 3.
- The loading dock for a kitchen room is located adjacent to the meat packing loading dock. The kitchen loading dock was found to be clean with no visible sources of pollution (see Photo 5, and Figure 3 for kitchen room location).
- The coffee roasting room was found to be clean and orderly; additionally, the loading dock for the coffee roasting room was found to be clean, with no visible sources of pollution (see Photos 7 and 9). Waste bins outside the loading dock were found to be covered with no visible trash (see Photo 8). The coffee roasting room location is shown in Figure 2.
- The textiles/sewing room was found to be clean and orderly; additionally, the partially covered textiles loading dock, and a storm drain outside the loading dock, were found to be clean, with no visible sources of pollution (see Photos 10, 12, and 13). The textiles/sewing room location is shown in Figure 2.
- While in the vicinity of the coffee roasting and textile/sewing rooms, Board staff also inspected the loading docks for a medical clinic and a gym, a storm drain outside the medical clinic loading dock, and some covered waste bins in the area (see Photos 14 thru 17, and 19). These loading docks were found to be clean and orderly, with no

Industrial Stormwater Compliance Inspection

visible sources of pollution. The storm drain was found to be clean, and the waste bins were covered with no visible trash. The locations of the medical clinic and gym are shown in Figure 2; the clinic is marked as "Prison Medical Facilities", and the gym is located to the right of the medical clinic.

- A kitchen cart washout area was located near the medical clinic and gym loading docks (see Photo 18). This area was found to be clean and orderly. According to MCSP staff, the drain in this area is plumbed to the WWTP.
- On the way to inspecting the prison warehouse, Board staff inspected a prison vehicle fueling station, vehicle maintenance area, and vehicle wash area (see Photos 23 thru 27). These areas were found to be clean and orderly, with vehicle maintenance liquids and waste stored in covered areas. According to MCSP staff, the drain in the vehicle wash area (see Photo 27) is equipped with an oil-water separator; and plumbed to the WWTP.
- Board staff inspected the primary warehouse for the prison, and found the warehouse loading dock, a compressed gas storage area, and the northern perimeter to be clean and orderly, with no visible sources of pollution (see Photos 28 thru 30). The warehouse is the large U-shaped building on the north side of the building complex shown in Figure 1.
- Board staff next travelled to the building complex shown in Figure 4. This complex is located northeast of the one shown in Figure 1. While at this location, Board staff inspected the partially covered sandwich packaging loading dock and found it to be clean and orderly, with no visible sources of pollution (see Photo 32).
- The WWTP's sludge press, sludge loading area, and covered sludge storage were found to be adequate for protecting stormwater quality (see Photos 34 thru 37). According to MCSP staff, the drain for the sludge press loading pad is plumbed to the WWTP, which is located just down-gradient from the pad. While at the WWTP, Board staff also inspected a covered disinfectant storage tank and a covered hazardous materials storage area (see Photos 38 and 39). These areas were found to be clean and orderly.
- During the inspection, Board staff noted several facility maintenance yards and storage areas that may contain derelict equipment or materials (e.g., rusting metal products or oil/lubricant-containing machinery). These yards/areas include the facility maintenance storage area shown in Photo 11; a storage yard outside a vocational welding room (see Photos 20 and 21); a facility maintenance yard near the laundry room (see Photo 22); an equipment/materials storage area near the warehouse (see Photo 31); and another vocational training equipment/storage yard by the sandwich packaging loading dock (see Photo 33).

SUMMARY:

- Board staff found that the NEC-covered areas (i.e., textiles/sewing, coffee roasting, and meat packing) complied with applicable requirements. The interior rooms were clean and orderly, and no potential sources of stormwater pollution were observed at the loading docks, or around storm drains; waste bins were covered and in good condition.
- Board staff inspected several areas that do not require a NEC, including the laundry room, kitchen, medical clinic, gym, and sandwich packaging loading docks; a kitchen cart washout area; a vehicle fueling station, wash area, and maintenance area; and the primary prison warehouse. These areas were found to be clean and orderly, with no visible sources of stormwater pollution.
- The WWTP sludge press was found to be as clean and orderly as can be expected; and a large, covered area has been constructed for sludge stormwater separation, storage, and drying. In addition to good housekeeping measures, the potential threat to stormwater quality posed by the sludge has been addressed by plumbing the sludge press pad to the WWTP. Other WWTP features, including the disinfectant storage tank and hazardous materials storage area, were found to be clean and orderly.
- The numerous facility maintenance yards and storage areas may contain derelict equipment and material that may pollute stormwater. MCSP should therefore survey these yards/areas and haul away equipment/materials/debris that is no longer needed.

Prepare by:



Brett Stevens
Senior Environmental Scientist
Stormwater Unit

Review by:

Kari Holmes, Program Manager
Compliance & Enforcement Section

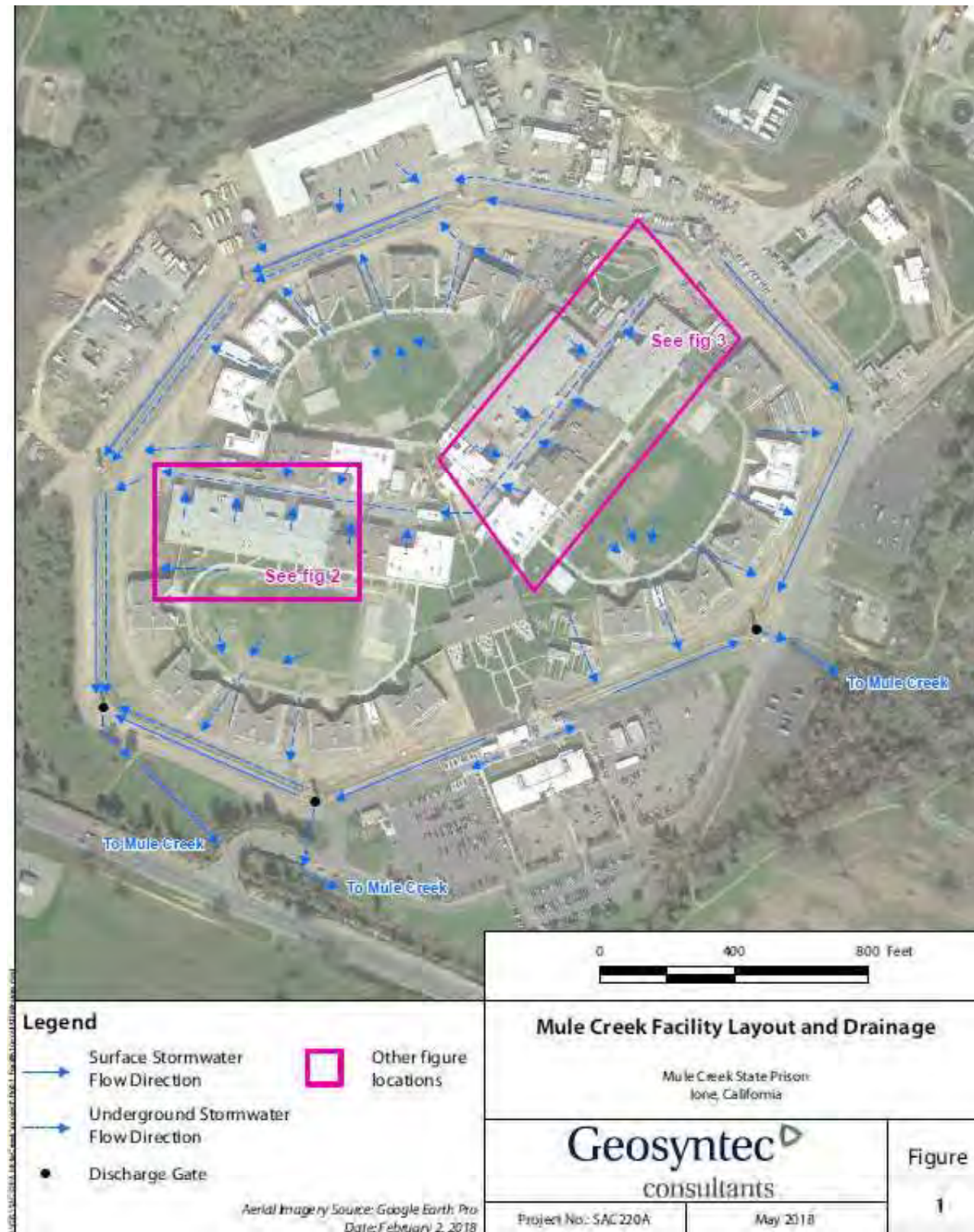


Figure 1. Mule Creek Facility Layout and Drainage

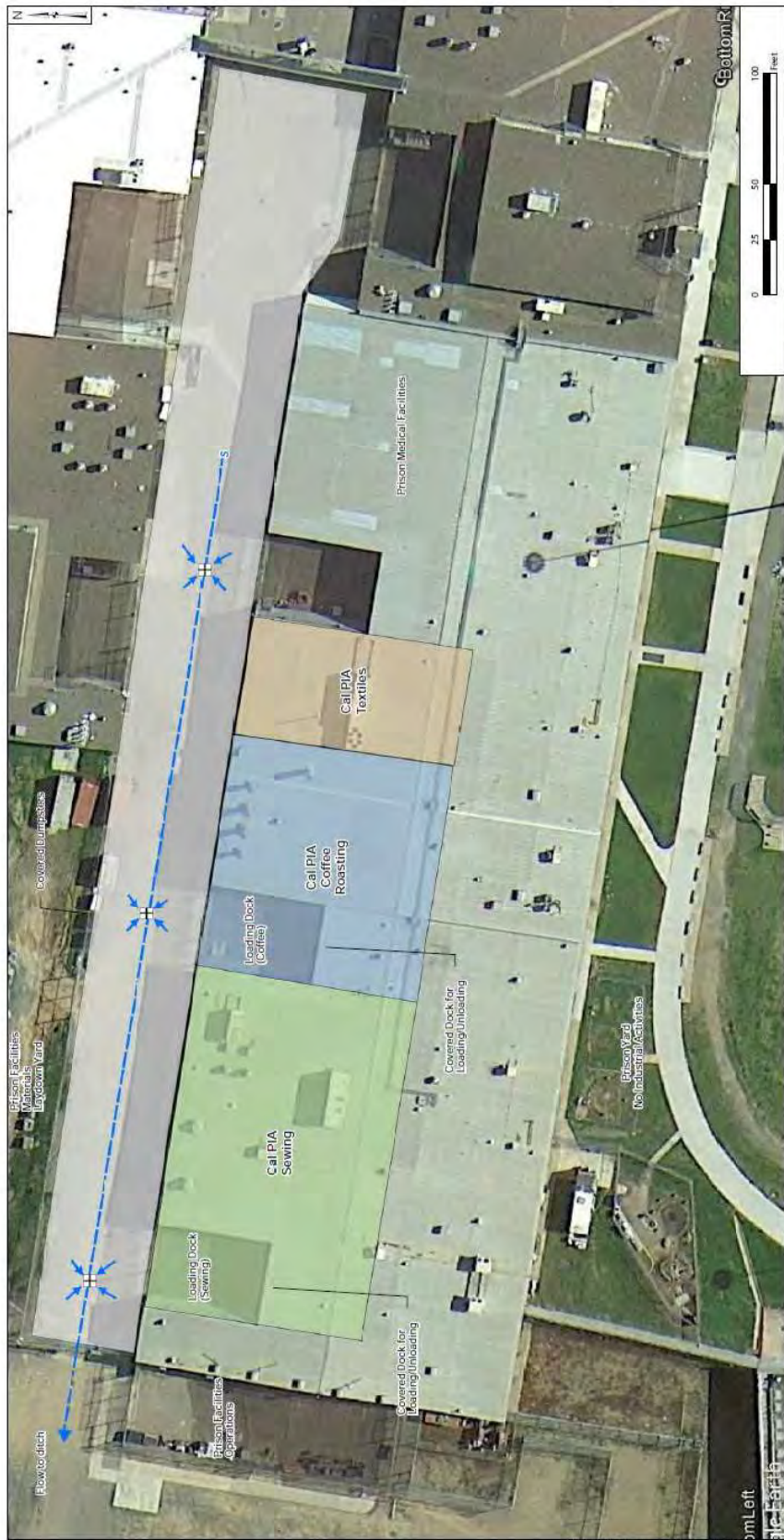


Figure 2. NEC for Sewing, Coffee Roasting, and Textiles



Figure 3. NEC for Sewing and Meat Packing

Industrial Stormwater Compliance Inspection



Figure 4. MCIC Facility Layout and Drainage

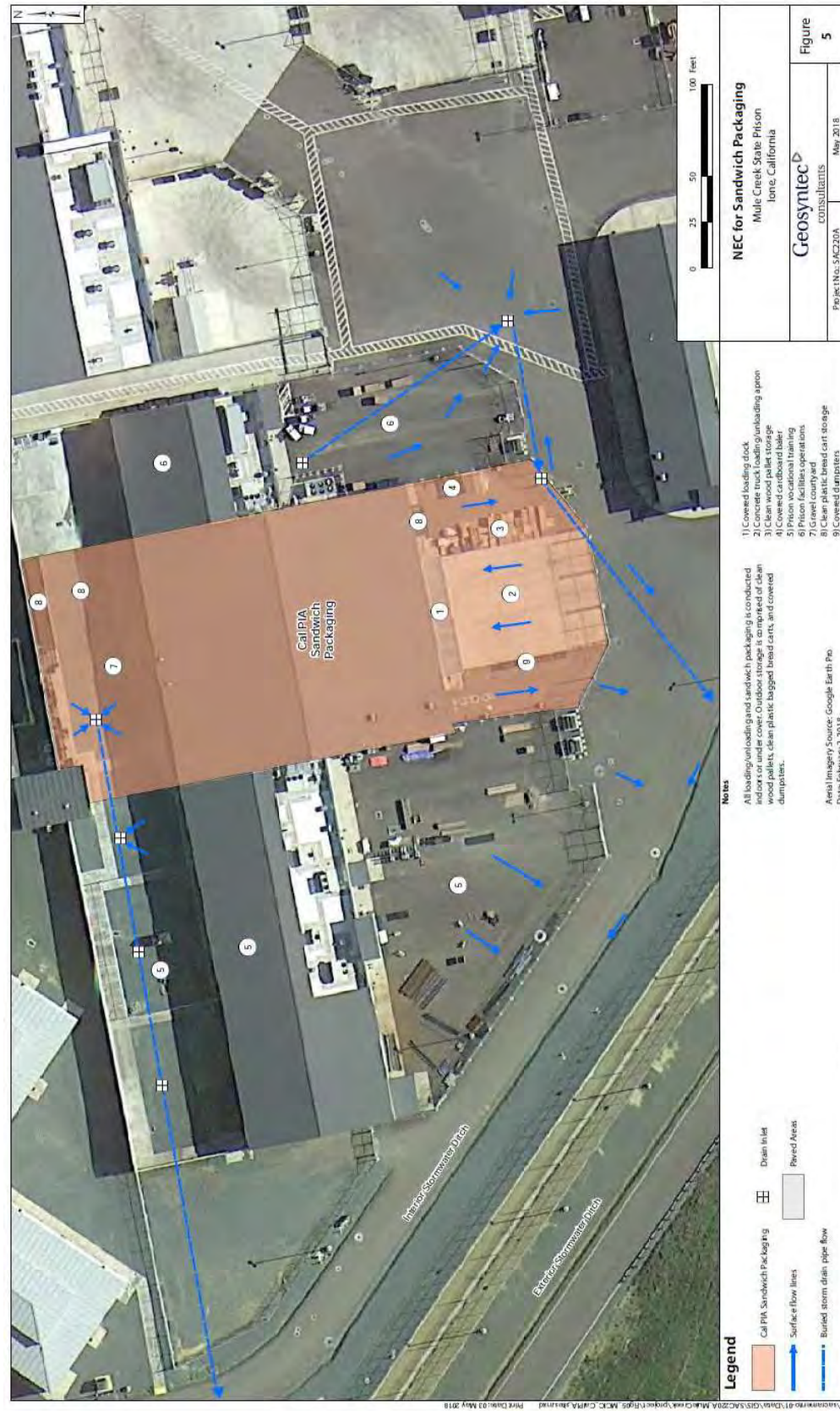


Figure 5. NEC for Sandwich Packaging

Industrial Stormwater Compliance Inspection



Photo 1: Laundry room; according to MCSP staff, drains in this room are plumbed to the onsite WWTP.



Photo 2: Loading dock for laundry room; according to MCSP staff, drains to storm sewer.



Photo 3: Storm drain outside of meat packing loading dock

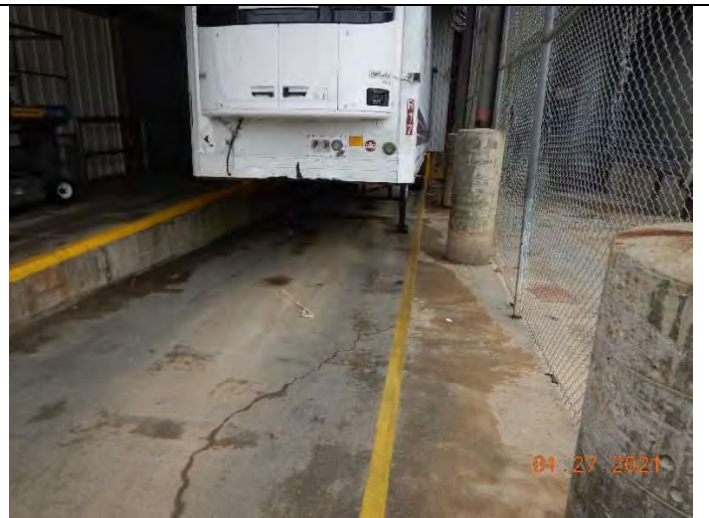


Photo 4: Loading dock for meat packing room



Photo 5: Kitchen loading dock



Photo 6: Meat packing room; according to MCSP staff, drains in this room are plumbed to WWTP.



Photo 7: Loading dock for coffee roasting room



Photo 8: Covered waste bins outside of coffee roasting loading dock



Photo 9: Cleaning supply storage in coffee roasting room



Photo 10: Textile sewing room



Industrial Stormwater Compliance Inspection

Photo 11: Facility maintenance storage area outside of textile sewing room



Photo 12: Loading dock for textiles sewing room



Photo 13: Storm drain outside of textiles room loading dock



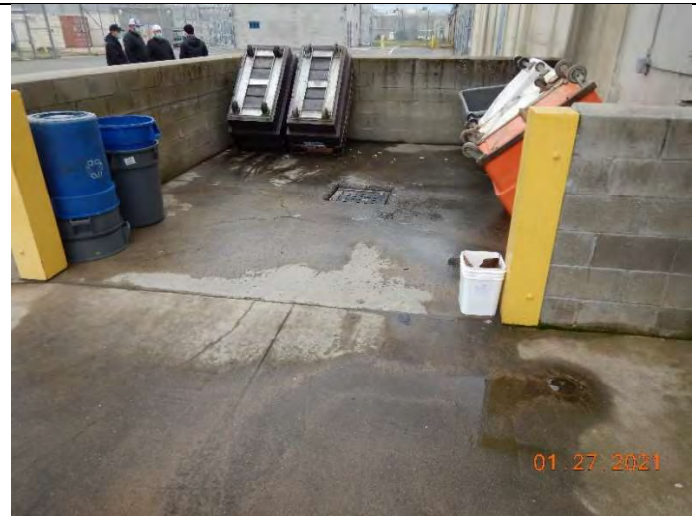
Photo 14: Loading dock for medical clinic



Photo 15: Storm drain outside loading dock for medical clinic



Photo 16: Loading dock for gym; converted to COVID patient housing



Industrial Stormwater Compliance Inspection

Photo 17: Covered waste bins outside gym loading dock



Photo 18: Kitchen cart washout area; according to MCSP staff, this drain is plumbed to the WWTP.



Photo 19: Covered waste bins outside medical clinic



Photo 20: Equipment/materials storage area outside vocational welding room



Photo 21: Hazardous materials storage area for vocational welding room



Photo 22: Facility maintenance yard near laundry room



Photo 23: Prison vehicle fueling station



Photo 24: Prison vehicle maintenance area



Photo 25: Prison vehicle waste storage area

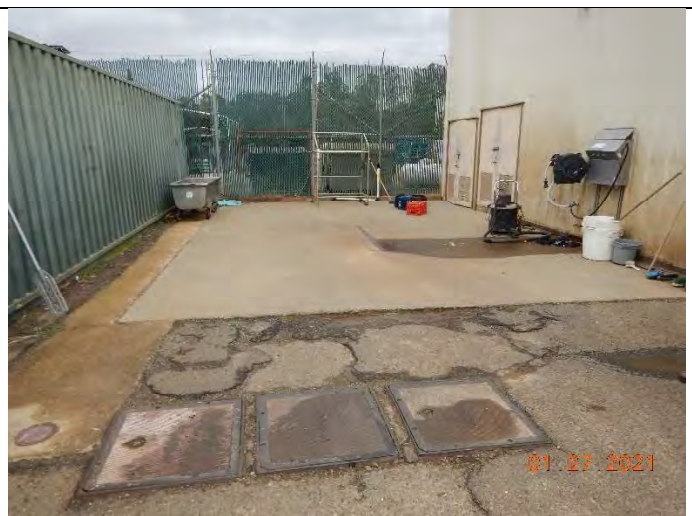


Photo 26: Covered prison vehicle hazardous materials storage area



Photo 27: Prison vehicle wash area; according to MCSP staff, wash water drain is plumbed to WWTP.



Photo 28: Warehouse loading dock with covered waste bins



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Photo 29: Compressed gas storage at warehouse



Photo 30: North side of warehouse



Photo 31: Equipment/materials storage area near warehouse



Photo 32: Sandwich shop loading dock



Photo 33: Vocational training equipment/materials storage yard



Photo 34: WWTP sludge press



Industrial Stormwater Compliance Inspection

Photo 35: Sludge transfer area; according to MCSP staff, this pad drains to WWTP



Photo 36: Covered sludge storage area



Photo 37: Aeration treatment at WWTP; WWTP is located down-gradient of the sludge press area.



Photo 38: Covered disinfectant storage tank at WWTP



Photo 39: Enclosed hazardous materials storage area at WWTP

EXHIBIT K

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**CALIFORNIA STATE WATER RESOURCES CONTROL BOARD
1001 I Street
Sacramento, CA 95814**

**FACT SHEET FOR
NPDES GENERAL PERMIT and WASTE DISCHARGE REQUIREMENTS FOR
STORM WATER DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER
SYSTEMS (ORDER)**

**ORDER No. 2013-0001-DWQ
As Amended by Order 2017-XXXX-DWQ**

This Fact Sheet describes the factual, legal, and methodological basis for the General Permit, provides supporting documentation, and explains the rationale and assumptions used in deriving the limits and requirements.

I. BACKGROUND

History

A 1972 amendment to the federal Water Pollution Control Act (also referred to as the Clean Water Act) provides that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The 1987 amendments to the Clean Water Act added section 402(p), which established a framework for regulating storm water discharges under the NPDES Program. Subsequently, in 1990, the U.S. Environmental Protection Agency (U.S. EPA) promulgated regulations for permitting storm water discharges from industrial sites (including construction sites that disturb five acres or more) and from municipal separate storm sewer systems (MS4s) serving a population of 100,000 people or more. These regulations, known as the Phase I regulations, require operators of medium and large MS4s to obtain storm water permits. On December 8, 1999, U.S. EPA promulgated regulations, known as Phase II regulations, requiring permits for storm water discharges from Small MS4s and from construction sites disturbing between one and five acres of land. The Order accompanying this Fact Sheet regulates storm water discharges from Small MS4s.

A municipal separate storm sewer is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) “owned or operated by the United States, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity....” (ii) designed or used for collecting or conveying storm water; (iii) which is not a combined sewer; and (iv) which is not part of a Publicly Owned Treatment Works (POTW). [See Title 40, Code of Federal Regulations (40 C.F.R.) §122.26(b)(8).]

A Small MS4 is an MS4 that is not permitted under the municipal Phase I regulations. (40 C.F.R. §122.26(b)(16)). Small MS4s include systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares, but do not include separate storm sewers in very discrete areas, such as individual buildings. (40 C.F.R. §122.26(b)(16)(iii).) This permit refers to MS4s that operate throughout a community as “Traditional MS4s” and MS4s that are similar to traditional MS4s but operate at a separate campus or facility as “Non-traditional MS4s.”

Federal regulations allow two permitting options for storm water discharges: individual permits and general permits. The State Water Resources Control Board (State Water Board) elected to adopt a statewide general permit for Small MS4s in order to efficiently regulate numerous storm water discharges under a single permit. In certain situations a storm water discharge may be more appropriately and effectively regulated by an individual permit, a region-specific general permit, or by inclusion in an existing Phase I MS4 permit. In these situations, the Regional Water Quality Control Board (Regional Water Board) Executive Officer will direct the Small MS4 operator to submit the appropriate application, in lieu of a Notice of Intent (NOI), to comply with the terms of this Order. In these situations, the individual or regional permits will govern, rather than this Order.

This Order regulates storm water runoff from small municipalities and other facilities, including federal and State operated facilities that can include universities, prisons, hospitals, military

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bases (e.g. State Army National Guard barracks, parks and office building complexes.) Regulating many storm water discharges under one permit greatly reduces the administrative burden associated with permitting individual storm water discharges. Permittees obtain coverage under this Order by filing an electronic NOI through the State Water Board's Stormwater Multiple Application and Report Tracking System (SMARTS) and by mailing the appropriate permit fee to the State Water Board.

Order Goals

The goals for the Order included:

1. Ensure statewide consistency for Regulated Small MS4s.
2. Include more specificity in Order language and requirements to streamline implementation of storm water programs.
3. Implement and enhance actions to control 303(d) listed pollutants, pollutants of concern, achieve Wasteload Allocations adopted under Total Maximum Daily Loads, and protect Areas of Special Biological Significance.
4. Implement more specific and comprehensive storm water monitoring, including monitoring for 303(d) listed pollutants.
5. Incorporate emerging technologies, especially those that are being increasingly utilized by municipalities (e.g., low impact development).
6. Include program elements that address Program Management Effectiveness Assessments.
7. Implement a step-wise stakeholder collaborative approach.

Stakeholder Collaborative Process

State Water Board staff conducted a series of stakeholder meetings with Permittees and other interested parties over a five year period, from 2007- 2012. These meetings included the California Stormwater Quality Association (CASQA) Phase II Small MS4 Subcommittee, representatives of non-governmental organizations, Non-traditional Small MS4s and Regional Water Board staff. The following is a summary of the stakeholder process.

State Water Board staff completed an administrative draft Order and submitted it to CASQA, U.S. EPA, Natural Resources Defense Council, Coast/Bay Keepers, and Heal the Bay for informal stakeholder review in February 2011. Each of the nine Regional Water Boards provided comments. Staff revised the draft Order to address the informal comments received and released it for 60-day public review in June 2011.

Approximately 151 comments were received and several workshops were held throughout California to meet Stakeholders, answer questions and discuss the development process.

On May 4, 2012 a second administrative draft was completed and submitted for informal stakeholder review. On May 18, 2012 the second draft Order was released for 60-day public review. Approximately 110 comments were received and a public hearing was held on August 8, 2012 to hear oral comments on the second administrative draft.

On November 16, 2012 a third draft was completed and submitted for 30-day public review period. The comment deadline was set for noon on December 17, 2012. Approximately 55 comments were received and a board workshop was held on January 8, 2013 to hear comments on the revisions made to the second administrative draft.

On January 23, 2013, a final draft was completed and proposed for State Water Board adoption.